

Chapter 9

Land and Shoreline Use

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9.1 Primary Issues

Compatibility with existing land use plans is typically a key compliance issue. The primary land use issues analyzed in this section are:

- Is the Applicant's proposal consistent with applicable land use policies and regulations?
- What land use changes would occur directly or indirectly, to the project site and adjacent lands, as a result of the proposal?

9.2 Affected Environment

9.2.1 Current Land Uses

Mining has occurred on the site since prior to World War II. Approximately 40 acres of the site have been mined to date. The site contains a portable screening plant, dock, and conveyor system. Mining activities within the past 20 years have consisted of occasional sand and gravel extraction for local use.

Approximately 10,000 cubic yards per year has been extracted from the site under the existing Grading Permit. The removal of gravel has not, however, occurred via this site's dock and conveyor system for over 20 years. The remainder of the site is sometimes used for informal recreation (see Chapter 12, Recreation).

Adjacent land uses include the Puget Sound shoreline, the Gold Beach residential community to the northeast, the Sandy Shores residential community to the southwest, and 60 acres of forested land owned by the Washington Department of Natural Resources to the northwest. Other land uses in the site vicinity include residential subdivisions, small 5- to 10-acre farms, some undeveloped parcels, and the community of Dockton.

Several large undeveloped parcels are also located north of the site, across Southwest 260th Street. To the west of the site are single-family homes on approximately 5- to 10-acre lots. The Maury Island community of Dockton is located further west of the site, above and adjacent to Quartermaster Harbor.

9.2.2 Growth Management Act, King County Comprehensive Plan, and Vashon Community Plan

The Washington State Growth Management Act, enacted by the 1990 legislature and amended in 1991 and 1992, contains a comprehensive framework for managing growth and coordinating land use planning with infrastructure. GMA requires that local governments designate, where appropriate, “mineral resource lands that are not already characterized by urban growth and that have long-term significance for the extraction of minerals” [RCW 36.70A.170(c)].

King County developed the current Comprehensive Plan in response to GMA, and identified the Maury Island site as a designated mineral resource site (Figure 9-1). To protect such lands, King County has developed policies to assure that adjacent land uses would not interfere with the continued use of these designated lands, in the accustomed manner, and in accordance with Best Management Practices.

According to “Chapter Six: Natural Resource Lands” of the King County Comprehensive Plan (1998), four main steps are necessary to maintain and enhance commercial mineral resource industries. First, mineral resource sites should be conserved through designation and zoning. Second, it is necessary to prevent or minimize land use conflicts between mining, processing, and related operations and adjacent land uses. Third, operational practices are necessary that protect environmental quality, fisheries, and wildlife, but are balanced with the needs of industry. Finally, mining areas need to be reclaimed in a timely and appropriate manner.

Although there are a variety of applicable Comprehensive Plan Rural and Environment policies (see Appendix D), the following Resource Land policies deal directly with existing mineral extraction operations:

RL-403. *In order to not knowingly preclude future use of mineral resources, King County shall identify Potential Mineral Resource*

Sites in the Comprehensive Plan and subarea plans. With the exception of sites in the Forest Production District, Potential Mineral zoning should be applied to such sites when owner/operators indicate an interest in future mineral resource use for their properties. Identification of Potential Mineral Resource Sites and Potential Mineral zoning does not replace or modify the site-specific zoning, conditional use, and operating approval processes for establishing new mining sites.

Discussion. The site is designated as a Mineral Resource site on the Mineral Resources Map of the King County Comprehensive Plan.

RL-405. *King County should apply zoning or other approvals as appropriate for mineral extraction and processing following site-specific environmental study, sufficient public notice and comment opportunities, when:*

- a. The proposed site contains rock, sand, gravel, coal, oil, gas or other mineral resources, &;*
- b. The proposed site is large enough to confine or mitigate all operational impacts, and;*
- c. The proposal will allow operation with limited conflicts with adjacent land uses when mitigating measures are applied, and*
- d. Roads or rail facilities serving or proposed to serve the site can safely and adequately handle transport of products and are in close proximity to the site.*

Although extractive operations can control most off-site impacts (see Section C below), concerns about the impacts of mining may effectively preclude mining adjacent to some land uses.

In addition, the proximity of conflicting uses to mining sites can increase the cost and difficulty of mining through vandalism to equipment, nuisance complaints and safety problems.

Discussion. This EIS represents an extensive site-specific evaluation consistent with this policy, as do the attendant specialist discussions, inter-department King County review, public debates, interagency consultations, permitting, and SEPA decisions.

This chapter, along with chapters related to noise, air quality, health and safety, and aesthetics, evaluates conflicts with adjacent land use, in accordance with this policy.

RL-409. *King County should prevent or minimize conflicts with mining when planning land uses adjacent to Designated and Potential Mineral Resource Sites. Community plans or other area-specific plans may indicate areas where special circumstances make mining an inappropriate land use. Designated and Potential Mineral Resource Sites and legal non-conforming sites should be shown on comprehensive and community plan maps as they are updated in order to notify nearby property owners and residents of existing and prospective mining activities.*

RL-410. *The periodic review process for M (Mineral) zoned sites and those sites operating in the Forest Production District and as legal nonconforming uses shall include sufficient public notice and comment opportunities. The purpose of the periodic review process is to provide opportunities for public review and comment on the mineral resource facility's fulfillment of state and county regulations and implementation of industry-standard Best Management Practices, and for King County to modify, add or remove conditions to address new circumstances and/or unanticipated project-generated impacts. The periodic review process is not intended to re-examine the appropriateness of the mineral resource use, or to consider expansion of operations beyond the scope of existing permitted operations since that review would be accomplished through the county's permitting process. The periodic review is intended to be a part of King County's ongoing enforcement and inspections of mineral resource sites, and not to be a part of the County's permitting process.*

RL-411. *Conditions and mitigations for significant adverse environmental impacts associated with mining operations should be required, especially in the following areas:*

- a. Air quality;*
- b. Environmentally sensitive and critical areas, such as surface and ground water quality and quantity, wetlands, fisheries and wildlife habitats;*
- c. Noise levels;*
- d. Vibration;*
- e. Light and glare;*
- f. Vehicular access and safety;*
- g. Visual impacts;*

- h. Cultural and historic features and resources;*
- i. Site security; and*
- j. Others unique to specific sites and proposals.*

RL-413. *King County should work with the State Department of Natural Resources to ensure that mining areas are reclaimed in a timely and appropriate manner. Where mining is completed in phases, reclamation also should be completed in phases as the resource is depleted.*

Discussion. Policies RL-409 and RL-410 have been implemented via the King County Comprehensive Plan and 1993 zoning code (Title 21A) (see discussion under Section 9.2.3). Policies RL-411 and RL-413 are addressed through the analysis of environmental impacts in this FEIS.

Vashon Community Plan policies have been adopted in “Chapter Fourteen: Community Plans” of the King County Comprehensive Plan (1998 amendment to the 1994 King County Comprehensive Plan). The 1994 King County Comprehensive Plan spelled out the relationship between the Comprehensive Plan and community plans and directed the County to review community plans and repeal or revise them to eliminate conflicts. The County reviewed all community plans adopted between 1973 and 1994 (Vashon Community Plan and Zoning was adopted in 1986) and determined that, while most community plans’ policies are redundant (or in some cases in conflict with the 1994 Comprehensive Plan), some are area-specific and should be readopted as part of the 1998 amendment.

Although the 1986 Vashon Community Plan is no longer in effect as a separately adopted plan, this document contains valuable historical information about Vashon and Maury Islands. It also includes other information that provides background for the new policies adopted in the 1998 “Chapter Fourteen: Community Plans” amendment and for the portions of pre-GMA area zoning that remain in effect.

There are no additional specific mineral resources policies adopted in the 1998 amendment that are new or have been retained from the 1986 Vashon Community Plan. However, a variety of applicable policies that address groundwater, wildlife, and recreation are summarized as follows (the complete text of each policy is found in Appendix D of the DEIS):

CP-1202. Importance of Vashon as a recharge area for the single-source aquifer. This subject is addressed in Chapter 4.

CP-1205. Protect and preserve the Island’s wildlife habitats. This subject is addressed in Chapter 5.

CP-1209. Land uses should be planned not to exceed groundwater capacity. This subject is addressed in Chapter 4.

CP-1210. No degradation of groundwater should be allowed. This subject is addressed in Chapter 4.

CP-1211. Maintain areas deemed highly susceptible to groundwater contamination in residential or non-intensive uses. This subject is addressed in Chapter 4.

CP-1219 through CP-1221 and CP-1223 through CP-1225. Encourage preservation and dedication of trails. These subjects are addressed in Chapter 12.

9.2.3 King County Zoning Code (Title 21A)

The King County Zoning Code (Title 21A of the King County Code) implements the King County Comprehensive Plan’s policies and objectives. The following sections outline the zoning of adjacent lands, followed by a description of King County zoning at the proposed mining site. Subsequent sections outline other elements of the King County Zoning Code that relate to mining and designated mineral resource lands.

9.2.3.1 Zoning Designation and Permitted Uses of Adjacent Lands

Properties to the immediate northeast and south of the site, including the Gold Beach and Sandy Shores communities, are zoned Rural Area 2.5 (one dwelling unit per 5 acres rather than 2.5 acres) (see [Figure 9-2](#)). The purpose of the rural zone (RA) is to: “provide for an area-wide long-term rural character and to minimize land use conflicts with nearby agriculture, forest or mineral extraction production industries” (KCC 21A.04.060). Current land use densities in Gold Beach and Sandy Shores are four to five dwelling units per acre, and represent development that occurred prior to the current zoning classification per the 1986 Vashon Community Plan and Zoning designation and the 1995 King County zoning amendment through Ordinance #12065.

Sandy Shores has approximately 70 home sites and Gold Beach has an estimated 220 home sites (Nelson 1997). These existing lots were legally created over the years and are smaller than the zoning allows. They were developed because they met Health Department and King County Code requirements for sewage disposal, water quality, roads, and rural fire protection at the time (1986 Vashon Community Plan and Zoning).

The properties to the immediate north and west of the project site are zoned Rural Area 10 (one dwelling unit per 10 acres) (Figure 9-2). This includes one 40-acre parcel and one 20-acre parcel (totaling 60 acres) owned by the WDNR. Two legal grandfathered 5-acre parcels, bordered on two sides by the project, are zoned Rural Area 10 and owned by Sestrap and Saunders. Properties immediately surrounding the project site are shown in Figure 1-5.

9.2.3.2 Site Zoning Designation and Permitted Uses

Quarry-mining (Q-M) zoning was originally placed on the site with the adoption of the 1964 Comprehensive Plan former zoning code (Title 21). The 1981 Vashon Community Plan and Area Zoning designated the site Q-M potential Suburban Cluster (SC). The subsequent 1986 update to the Vashon Community Plan zoned the project site Q-M potential Rural Area 2.5 (AR-2.5-P). Both plans noted that: “The potential zoning is to ensure consistency with the Plan. When the existing quarrying and mining uses are terminated and the property returned to residential uses, the AR-2.5-P zoning should be designated.” The P-suffix conditions dealt with requirements to limit impervious surface and to implement a water use performance standard. They were to be applied at the time of any future residential development.

These designated extraction sites, including the project site, were planned for future residential use. Gold Beach was recognized in the 1986 Vashon Community Plan as a former gravel pit that is now in residential use. All Q-M zoned property was also zoned *potential* AR-2.5 acres (one dwelling unit per 2.5 acres) in the 1986 Vashon Plan and Zoning to indicate long-range plans for residential use of these sites at the conclusion of mining. The 1986 Vashon Community Plan stated (page 31) that rezones for residential development at 2.5-acre densities should be permitted (subject to Vashon Community Plan policies and King County policies and regulations) on Q-M zoned sites following the termination of extractive operations and the “reconditioning of the land”.

The zoning was converted to M (Mineral) (potential RA-2.5) in February 1995 to implement the new zoning code (Title 21A), adopted in 1993. The M zone includes mining and processing activities as a permitted use, in the 1995 King County zoning amendment through Ordinance #12065 (see Figure 9-2). The site is also a Designated Mineral Resources Site per the King County Mineral Resources Map (1998).

The purpose of the M zone is “to provide for continued extraction and processing of mineral and soil resources in an environmentally responsible manner” (KCC 21A.04.050). The 1998 King County Comprehensive Plan also specifies (page 107) that designated Mineral Resource Sites are “those properties that are currently either zoned outright for mining or those operating under an approved Unclassified Use Permit. Such sites have undergone a formal review and approval process and, therefore, will permit long-term operations to continue with minimal conflicts with adjacent land uses and continued environmental protection.”

The potential RA-2.5 zone is a rural area, one dwelling unit per 2.5 acres zone equivalent to the potential AR-2.5 zoning that existed previously on the site.

In addition to the requirements of the M zone, a special district overlay condition (SO-140) applies to the site as follows:

SO-140. Ground Water Protection

- a. The purpose of the ground water protection special district overlay is to limit land uses that have the potential to severely contaminate groundwater supplies and to provide increased areas of permeable surface to allow for infiltration of surface water into groundwater resources.*
- b. For all commercial and industrial development proposals, at least 40 percent of the site shall remain in natural vegetation or planted with landscaping, which area shall be used to maintain predevelopment infiltration rates for the entire site. For purposes of the special district overlay, the following shall be considered commercial and industrial land uses:*
 - 1. amusement/entertainment land uses as defined by KCC 21A.08.040 except golf facilities;*
 - 2. general services land uses as defined by KCC 21A.08.050 except health and educational services, daycare I, churches, synagogues, and temples;*

3. *government/business services land uses as defined by KCC 21A.08.060 except government services;*
 4. *retail/wholesale land uses as defined by KCC 21A.08.070 except forest product sales and agricultural product sales;*
 5. *manufacturing uses as defined by KCC 21A.08.080; and*
 6. *mineral extraction and processing land uses as defined by KCC. 21A.08.090.*
- c. *Permitted uses within the area of the ground water protection special district overlay shall be those permitted in the underlying zone, excluding the following as defined by Standard Industrial Classification number and type:*
1. *SIC 4581, airports, flying fields, and airport terminal services;*
 2. *SIC 4953, refuse systems (including landfills and garbage transfer stations operated by a public agency);*
 3. *SIC 4952, sewerage systems (including wastewater treatment facilities);*
 4. *SIC 7996, amusement parks; SIC 7948, racing, including track operation; or other commercial establishments or enterprises involving large assemblages of people or automobiles except where excluded by Section B above;*
 5. *SIC 0752, animal boarding and kennel services.*
 6. *SIC 1721, building painting services;*
 7. *SIC 3260, pottery and related products manufacturing;*
 8. *SIC 3599, machine shop services;*
 9. *SIC 3732, boat building and repairing;*
 10. *SIC 3993, electric and neon sign manufacturing;*
 11. *SIC 4226, automobile storage services;*
 12. *SIC 7334, blueprinting and photocopying services;*
 13. *SIC 7534, tire retreading and repair services;*
 14. *SIC 7542, carwashes;*

15. *SIC 8731, commercial, physical and biological research laboratory services;*
16. *SIC 02, interim agricultural crop production and livestock quarters or grazing on properties 5 acres or larger in size, within I zoned lands;*
17. *SIC 0752, public agency animal control facility;*
18. *SIC 2230, 2260, textile dyeing;*
19. *SIC 2269, 2299, textile and textile goods finishing;*
20. *SIC 2700, printing and publishing industries;*
21. *SIC 2834, pharmaceuticals manufacturing;*
22. *SIC 2844, cosmetics, perfumes and toiletries manufacturing;*
23. *SIC 2893, printing ink manufacturing;*
24. *SIC 3000, rubber products fabrication;*
25. *SIC 3111, leather tanning and finishing;*
26. *SIC 3400, metal products manufacturing and fabrication;*
27. *SIC 3471, metal electroplating;*
28. *SIC 3691, 3692, battery rebuilding and manufacturing;*
29. *SIC 3711, automobile manufacturing; and*
30. *SIC 4600, petroleum pipeline operations.*

None of the uses proposed by the Applicant is included in Subsection C of the special district overlay. Subsection B would be addressed through phasing of the project. Forty percent of the site equals approximately 94 acres. No more than two 32-acre phases are proposed to be in mining/reclamation at any one time. The remaining 171 acres would be left in native vegetation or landscaping where appropriate.

9.2.3.3 Development Standards, Operating Standards, and Periodic Review

The development standards for mineral extraction operations are provided in Chapter 21A.22 of the Zoning Code. Specific site

design standards are specified in Section 9.4.2. The King County Zoning Code also requires periodic review of extractive and processing operations in King County (KCC 21A.22.050). Periodic review allows for review of development and operating standards at least every 5 years. The periodic review is conducted by the King County DDES and is used to determine that the site is operating consistent with the most current standards, and to establish other conditions as necessary to mitigate identifiable environmental impacts. The periodic review process also allows for an appeal to the King County Hearing Examiner of the Department's review decision. Although the examiner cannot rule on whether to approve or deny the operating permit, the examiner can determine whether development conditions are adequate to mitigate for environmental impacts. This EIS shall serve as the basis of the County's future periodic review.

9.2.3.4 Sensitive Areas

Chapter 21A.24 of the King County Zoning Code requires protection of defined sensitive areas including wetlands, streams, and flood, erosion, landslide, seismic, and coal hazard areas. The entire bluff area is an erosion hazard area.

9.2.4 King County Grading Permit

The Applicant currently holds a King County Grading Permit (No. 1128) for the project site that has been kept current since 1971. The Proposed Action is considered a revision (King County No. L9800281) to the existing Grading Permit. Per the State Environmental Policy Act, King County has reviewed this permit revision request and issued a Determination of Significance that requires the production, and subsequent review, of this EIS (see Chapter 1).

9.2.5 Washington State Surface Mining Act (RCW Chapter 78.44)

The legislature has recognized that the surface extraction of earth minerals for commercial, industrial, or construction purposes is an activity essential to the economic well being of the state. RCW Chapter 78.44 provides that the usefulness, productivity, and scenic values of all lands and waters involved in surface mining within the state should receive the greatest practical degree of protection and restoration. The statute requires submission of a

plan for reclamation of mined areas. The reclamation plan must satisfy standards, which are listed in Section 9.4.2.

Administration of this program is conducted through WDNR. The WDNR has review, site inspection, and approval authority over all surface mining reclamation plans.

9.2.6 Washington State Shoreline Management Act

The legislature enacted the Shoreline Management Act (SMA) in 1971 to protect the public interest associated with shorelines of the state while, at the same time, recognizing and protecting private property rights consistent with the public interest. The primary mechanism for implementing the SMA is the adoption of Shoreline Master Programs, which must be approved by local governments and the Department of Ecology. King County has adopted a Shoreline Master Program and implementing Shoreline Management Code (updated in 1998) (Section 9.2.7).

The site is located adjacent to Puget Sound and contains “shoreline” area as defined under the SMA. The SMA establishes two basic categories of shoreline:

- *shorelines of state-wide significance; and*
- *shorelines* (all of the water areas of the state, including reservoirs, and their associated wetlands, together with the lands under them).

The SMA does not designate the project site’s shoreline as a “shoreline of state-wide significance.” Areas of the site from the ordinary high water mark to a line 200 feet landward are regulated under the SMA as “shorelines.”

The SMA defines “Substantial Development” as: “Any development of which the total cost or fair market value exceeds two thousand five hundred dollars, or any development which materially interferes with the normal public use of water or shorelines of the state; except that the following shall not be considered substantial development for the purpose of this chapter:

- (i) Normal maintenance or repair of existing structures or developments, including damage by accident, fire, or elements; ...”

The Applicant's proposal includes work to the existing dock and conveyor system (described in the following section).

9.2.7 King County Shoreline Master Program

The King County Shoreline Management Master Program (KCC Title 25) designates the shoreline on the project site as a "Conservancy Environment". This designation is intended to maintain the existing character of this shoreline through the protection, conservation, and management of existing natural resources and valuable historic and cultural areas. The preferred uses in a Conservancy Environment are those that do not consume the physical and biological resources of the area.

The Proposed Action does not include new mining or mining support facilities within 200 feet of the ordinary high water mark (Hillis, Clark, Martin and Peterson 1998a, 1998b, 1998c). The proposal does, however, request authorization for substantial repairs to a dock and conveyor system which are necessary to accommodate the proposed removal and transport of mined gravel material across the shoreline jurisdiction.

Chapter 6 includes more detailed information about the dock.

9.2.8 Washington State Department of Natural Resources Aquatic Lands Lease

An Aquatic Lands Lease is required from the WDNR for operations within aquatic lands, including docks. The Applicant has an existing permit for "the express purpose of operating and maintaining a conveyor loading dock". The most recent lease renewal, granted in 1988 for a period of 12 years, states that the "permitted use" of the lease is to "operate and maintain a conveyor loading dock".

9.3 Impacts

9.3.1 Is the Applicant's proposal consistent with applicable land use policies and regulations?

9.3.1.1 *Proposed Action*

GMA and the King County Comprehensive Plan. The Proposed Action is consistent with the King County Comprehensive Plan designation of the site as mineral resource lands (see [Figure 9-1](#)). This designation is intended to prevent encroachment of residential developments or other uses that may conflict with using the site to provide mineral resources.

Allowing mining to occur on the property at some level will serve to support State Growth Management mandates to conserve and enhance mineral resources of commercial significance (see RCW 36.70A.170). The "County-wide planning policies" of King County require protecting mineral resource land and establish the priority of mineral resource lands in rural areas. See, particularly, Framework Policy FW-9, which encourages the continuation and expansion of resource-based industries in the rural areas.

King County Zoning Code. Development of the site is consistent with its zoning as "M" (Mineral Resources) under KCC Title 21A, which includes mining and processing activities as a permitted use (see [Figure 9-2](#)). The Applicant has not specifically proposed fences on the site to discourage access to hazardous areas, such as active extracting, processing, stockpiling, and loading areas; unstable slopes; and locations of settling ponds or other stormwater facilities. Specific requirements may be developed as part of mitigation and other conditions for project approval.

Mining of bluffs would eliminate, rather than exacerbate, concerns regarding erosion hazard areas. Such mining is an allowable use.

Washington State Surface Mining Act. A modified reclamation plan to meet the statutory requirements of the Surface Mine Reclamation Act (RCW Chapter 78.44) has been submitted to the WDNR by the Applicant. The existing WDNR Reclamation Permit for the site dates back to 1971. In 1991, WDNR reapproved the Applicant's previously modified reclamation plan per RCW 78.44.091.

The Applicant proposes accomplishing site reclamation in discrete segments as mining reserves are depleted in a given area. This phased approach allows revegetation to be initiated at the earliest time practical. Consistent with WDNR requirements, the Applicant proposes site reclamation to be accomplished in four steps:

1. pre-mining site preparation;
2. slope stabilization and erosion control, including stormwater control and temporary erosion control measures (such as hydroseeding and filter fence check dams);
3. final contouring and topsoil placement; and
4. revegetation with grasses, shrubs and trees.

Note that soil augmentation may be required since topsoils would be contained onsite due to concerns about arsenic. See Chapter 2 for further information on the reclamation plan.

King County Shoreline Master Program. King County has determined that this proposal requires a Shorelines Substantial Development Permit. Compliance with the Shoreline Master program will be evaluated as part of the SSDP.

WDNR Aquatic Lands Lease. The Applicant has regularly renewed its Aquatic Lands Lease with WDNR. The most recent lease renewal, granted in 1988 for a period of 12 years, states that the “permitted use” of the lease is to “operate and maintain a conveyor loading dock”. A “plan of operations” included as an exhibit to the lease states that “this lease covers an area which includes a permitted dock used for the shipment of sand and gravel” (Hillis, Clark, Martin and Peterson 1998b).

Army Corps of Engineers Individual Permit. The Army Corps of Engineers has determined that the dock facility is no longer “serviceable” and that the standard individual permit process under Section 10 of the Rivers and Harbors Act of 1899 will be required.

9.3.1.2 Alternatives 1 and 2

Alternatives 1 and 2 would be consistent with area land use plans and policies, with the exception that fencing may need to be added per King County Code, as is the case with the Proposed Action.

Perceived conflicts from residents may be less, since barging and related activities would decrease compared to the Proposed Action.

9.3.1.3 No-Action

Mining under the No-Action Alternative, as defined in Chapter 2, would be consistent with area land use plans and policies as well as the existing Grading Permit.

9.3.2 What land use changes would occur directly or indirectly, to the project site and adjacent lands, as a result of the proposal?

9.3.2.1 Proposed Action

The land use of much of the site would change from a low-level to a high-production mining operation. Existing open space features would be removed and reclaimed in phases per the Applicant's proposal. The community's informal recreational use of the property would decrease (see Chapter 12).

The existing land uses in the vicinity of the project site would remain as is or would develop as zoned. It is possible that the residential property that is currently undeveloped would not develop as quickly as under No-Action, due to increased mining activity on the project site. If WDNR disposes of its adjoining 60 acres (currently zoned one dwelling unit per 10 acres), it could be developed as residential properties at that density (Kiehle pers. comm.).

9.3.2.2 Alternatives 1 and 2

Impacts would be the same as the Proposed Action, but changes in land use and subsequent reclamation would occur at a slower rate due to the increased duration of the project. Adjacent land use changes would occur at the same rate as the proposal.

9.3.2.3 No-Action

Development would continue to occur as currently zoned and permitted under the No-Action Alternative. Mining activities on the project site would occur at a very slow pace and therefore would not be as noticeable. In addition, the surrounding RA 10-acre zoned properties would continue to develop residentially as zoned, with single-family homes and small farms.

The existing communities of Gold Beach, Sandy Shores, and Dockton would continue to infill and develop any remaining parcels unless the zoned dwelling density is enforced. The 60 acres of WDNR property adjoining the project site could still change from the existing land use if WDNR chooses to dispose of this property in the future.

9.4 Adverse Impacts and Mitigation

9.4.1 Significance Criteria

King County considers the following as indicators of significance for impacts on land and shoreline use under SEPA.

- Violating or causing inconsistencies with applicable land-use policies and regulations.
- Rendering existing and approved land uses no longer suitable for such use.

9.4.2 Measures Already Proposed by the Applicant or Required by Regulation

The following development measures are required by KCC Chapter 21A.22 (Development Standards – Mineral Extraction):

- a. Extractive operations on sites larger than 20 acres must occur in phases.
- b. Fences that are at least 6 feet in height above the grade must be provided onsite to discourage access to hazardous areas, such as active extracting, processing, stockpiling, and loading areas; unstable slopes; and any settling pond or other stormwater facility.
- c. Fences must have lockable gates at all openings, be no more than 4 inches from the ground to the fence bottom, and be in good repair.
- d. Warning and trespass signs advising of the extractive operations must be placed on the perimeter of the site adjacent to RA, UR or R zones at intervals no greater than 200 feet along any unfenced portion of the site where hazardous activities are occurring.

- e. Buildings or structures used in the processing of materials must be no closer than 100 feet from UR or R zoned properties; this setback may be reduced to 50 feet when the grade where such buildings or structures are proposed is 50 feet or greater below the grade of the adjacent UR or R zoned property.
- f. Buildings or structures used in the processing of materials must be no closer than 20 feet from any other zoned property, except when adjacent to another extractive site, or from any public street.
- g. Offices, scale facilities, equipment storage buildings, and stockpiles shall not be closer than 20 feet from any property line, except when adjacent to another extractive site.
- h. Landscaping must be provided along any portion of the site perimeter where disturbances, such as site clearing, grading, or mineral extraction or processing, is performed, except where adjacent to another extractive operation.
- i. Lighting must be limited to that required for security, lighting of structures and equipment, and vehicle operations, and must not directly glare onto surrounding properties.

Operating standards set forth in KCC Chapter 21A.22 are as follows:

- j. Applicable noise standards for operations would be those required by King County Noise Ordinance or as required by project-specific SEPA mitigation, whichever is more stringent.
- k. Dust and smoke produced by extractive operations must not substantially increase the existing levels of suspended particulates at the perimeter of the site and must be controlled by watering of the site and equipment or by other methods specified by the County.
- l. The Applicant must provide for measures to prevent transport of rocks, dirt, and mud from trucks onto public roadways.
- m. The Applicant must provide traffic control measures specified by the County during all hours of operation.
- n. The Applicant is responsible for cleaning debris or repairing damage to roadways caused by the operation.

Measures required by the WDNR are as follows:

- o. Excavation pits for unconsolidated materials are not to exceed slopes of 1.5:1; banks for open pits in consolidated materials are not to exceed a slope of 1:1; and slopes of quarry walls have no prescribed slope standard but precautions are to be made to provide adequate safety.
- p. Strip mining operations must grade spoil banks to match the contours of the surrounding land.
- q. Suitable drainage systems must be constructed to prevent any collection of stagnant water.
- r. Materials used for backfilling and grading must not be noxious, flammable, or combustible.
- s. Acid-forming refuse must be covered with at least 2 feet of clean fill and graded to prevent drainage into the area.
- t. Vegetated cover appropriate for the eventual use of the site is required as part of the reclamation plan.

9.4.3 Remaining Adverse Impacts and Additional Measures

9.4.3.1 LU Impact 1 – Potential Conflict with Residential Uses

Specific Adverse Environmental Impact. While consistent with existing zoning, the project would increase industrial activity next to residential communities. Most concerns are expected at the project boundary, since the Applicant proposes to mine within 50 feet of adjacent properties.

9.4.3.2 LU Mitigation 1

Increasing the vegetated perimeter at selected locations, as necessary, would reduce potential conflicts with or disturbances to adjacent residences. In addition, because land use involves many elements of the environment, mitigation measures for other elements would apply to reduce potential conflicts with adjacent land use.

Regulatory/Policy Basis for Condition. The 1994 Comprehensive plan outlines several policies to ensure and protect limited conflicts with adjacent land uses (see RL-405 and RL-411).

9.5 Cumulative Impacts

Increased mining would be additive to that which has already occurred on Maury Island, or which is likely to occur under existing zoning.

This project is not part of a series of actions that may cause cumulative effects. However, Vashon and Maury Island are expected to continue to grow. Residential and commercial development will surely continue to increase, and with it will come reduced forest, including madrone, and loss of wildlife habitat.

9.6 Significant Unavoidable Adverse Impacts

None expected. The project, however, would create noise, visual, and access changes that would be considered adverse by members of surrounding communities.

The residential environment would be adversely affected by noise and visual disturbance, but such impacts would be in compliance with existing land use law, especially in light of the current zoning of the site.

One of the primary reasons to identify mineral sites is to notify nearby property owners and residents of existing and prospective mining activities (see RL-409).

Decisions regarding the Shoreline Management Act, including additional mitigation, would be resolved prior to King County issuance of a grading permit.

Through the grading permit process, the Applicant is required to comply with all applicable provisions of the King County Zoning Code 21A, in particular, and the Development Standards for Mineral Extraction specified in KCC 21A.22.010 through 090.

Of critical importance is adherence to the periodic review process to ensure ongoing operations are continuing in accordance with the conditions of approval established under the decision, should the project proceed and be approved with conditions. In particular, fencing, Warning/Trespass signs, landscaping, and lighting shall be provided as stipulated in KCC 21A.-.22.060(C),(D),(G), and (H).

9.7 Citations

9.7.1 Printed References

Hillis, Clark, Martin and Peterson. 1998a. Memorandum to King County Department of Development and Environmental Services. February 19.

_____. 1998b. Memorandum to King County Department of Development and Environmental Services. February 24.

_____. 1998c. Memorandum to King County Department of Development and Environmental Services. May 28.

King County. 1997. 1994 King County comprehensive plan, complete with 1997 updates and 1998 amendments. King County Department of Development and Environmental Services. Renton, WA.

Nelson, S. 1997. Letter to King County Department of Development and Environmental Services. December 30.

9.7.2 Personal Communications

Kiehle, Dave. Land manager, Department of Natural Resources, Enumclaw Office. January 22, 1999 – telephone conversation.